

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**TQ DELTA, LLC,  
Plaintiff,**

V.

**COMMScope Holding Company, Inc., Commscope Inc., Arris International Limited, Arris Global Ltd., Arris US Holdings, Inc., Arris Solutions, Inc., Arris Technology, Inc., and Arris Enterprises, LLC,**

**NOKIA CORP., NOKIA SOLUTIONS  
AND NETWORKS OY, and NOKIA OF  
AMERICA CORP.**

## Defendants.

## JURY TRIAL DEMANDED

**Civil Action 2:21-cv-310-JRG**  
**(Lead Case)**

**Civil Action No. 2:21-cv-309-JRG**  
**(Member Case)**

**PLAINTIFF TQ DELTA’S MOTION FOR LEAVE TO AMEND ITS  
INFRINGEMENT CONTENTIONS AGAINST  
THE NOKIA DEFENDANTS**

## I. INTRODUCTION

Plaintiff TQ Delta, LLC (“TQ Delta”) respectfully requests that the Court grant it leave to amend its Infringement Contentions against Defendants Nokia Corporation, Nokia Solutions and Networks Oy, and Nokia of America Corporation (collectively, “Nokia”) to add a single citation to its claim chart for Claim 8 of U.S. Patent 8,594,162 (the “’162 Patent”) to identify Nokia’s compliance with ITU-T G.993.5 (04/2010) (the “G.vector Standard”). The only impact of this change is that it provides additional evidence of infringement: the accused functionality in the amended chart is *mandatory*, whereas the prior chart indicated that the functionality is *optional*.

Nokia is already accused of infringing Claim 8 of the ’162 Patent by, *inter alia*, complying with the ITU-T G.993.2 VDSL2 Standard, which provides, *inter alia*, for *optional* dynamic change of interleaver depth:

Claim Chart for U.S. Patent No. 8,594,162	
<u>U.S. Patent No. 8,594,162</u>	<u>Infringement Allegations</u>
	See, e.g., ITU-T G.993.2 (02/2019) at § 3.64 Syncflag, § 10.5.3 On-line reconfiguration
change to transmitting using a second interleaver parameter value that is different than the first interleaver parameter value,	<p><b><u>ITU-T G.993.2 VDSL2 Standard</u></b></p> <p>The Accused Products change to transmitting using a second interleaver parameter value that is different than the first interleaver parameter value. See, e.g., ITU-T G.993.2 (12/2011) at § 9.4.1 – Dynamic change of interleaver depth and Table 11-6</p> <p><b>9.4.1 Dynamic change of interleaver depth</b></p> <p>A method to dynamically change the interleaver depth during transmission is defined for VDSL2. This method is optional. Support shall be indicated during initialization in O-MSG 1 and R-MSG 2.</p> <p>NOTE – Although this clause defines the procedure for dynamically changing the interleaver depth during transmission, the control command for initiating this procedure is not defined in this version of in this Recommendation. The calling procedure for dynamic change of interleaver depth will be defined in a future revision to this Recommendation.</p>

Exh. A, ’162 Patent Claim Chart at 9 (red box emphasis added).

The addition of the citation to §6.1 of the G.vector Standard indicates that functionality related to vectoring present in the accused products is now mandatory through compliance with the G.vector Standard:

Claim Chart for U.S. Patent No. 8,594,162	
<u>U.S. Patent No.</u> <u>8,594,162</u>	<u>Infringement Allegations</u>
	<p><u>In addition for products that operate in accordance with the G.Vector (G.993.5) standard - See also and ITU-T G.993.5 (04/2010) at § 6.1 General:</u></p> <p><b>6.1 General</b></p> <hr/> <p>The VTU-O shall support downstream vectoring (see clause 6.2) and may support upstream vectoring (see clause 6.3).</p> <p>The VTU-O shall support seamless rate adaptation (SRA, OLR Type 3) in the downstream and upstream direction, including mandatory support within SRA of:</p> <ul style="list-style-type: none"> <li>– dynamic interleaver reconfiguration (change of <math>D_p</math>);</li> </ul> <hr/> <ul style="list-style-type: none"> <li>– framing reconfiguration (change of <math>T_p</math>, <math>G_p</math> and <math>B_{p0}</math>);</li> </ul> <p>as defined in clause 13.1 of [ITU-T G.993.2], titled "Types of on-line reconfiguration".</p> <hr/>

Exh. B, Proposed Amended '162 Patent Claim Chart at 11 (red box emphasis added).<sup>1</sup>

Because the evidence arises from compliance with what could be considered a separate standard<sup>2</sup> (G.vector), TQ Delta now seeks leave, at this early stage in the case, to avoid any confusion or argument later that Nokia infringes through compliance with the G.vector Standard in addition to compliance with the VDSL2 Standard. This proposed amendment adds no new patents, no new claims, no new products, and no new infringement theories as vectoring is disclosed in the VDSL2 Standard. Given the early stage of this case and the scope of the proposed amendment, TQ Delta's proposed amendment creates no prejudice to Nokia, and requires no change to the current schedule.

## II. BACKGROUND

<sup>1</sup> The graphic inserted here represents the proposed redline TQ Delta sent to Nokia on December 2, 2021, identifying its proposed amendment. One look at the proposed amendment is enough to indicate that Nokia has no basis to oppose this Motion. But Nokia has taken the opposite position and failed to articulate any basis for its opposition except that it believes TQ Delta is asserting too many claims in this lawsuit. *See* Dkt. No. 77 (Nokia's Motion for Entry of Order Focusing Patent Claims and Prior Art).

<sup>2</sup> The G.vector Standard can arguably be construed as a "sub-standard" of the VDSL2 Standard.

TQ Delta filed its Original Complaint against Nokia on August 13, 2021, in which it alleges infringement of 19 of its patents<sup>3</sup>. *TQ Delta, LLC v. Nokia Corp.*, No. 2:21-cv-309-JRG (E.D. Tex.) (“309 Case”) (Dkt. No. 1). In its Complaint, TQ Delta accused Nokia products that comply with the G.Vector Standard: “Nokia infringes the TQ Delta Patents. Its products comply with and implement the DSL standard, including . . . G.vector . . . .” Original Complaint at ¶ 29, 309 Case (Dkt. No. 1). As another example: “The Accused Nokia DSL Products include products that operate in accordance with VDSL2 (ITU-T G.993.2), the [sic] including G.vector (ITU-T G.993.5) standard.” *Id.* at ¶ 98. The preceding allegation contains a footnote with links to Nokia webpages displaying the specific products using vector technology. *Id.* at n.23.

The ’162 Patent Claim Chart expressly and fully discloses, *inter alia*, TQ Delta’s infringement theory that the claims (including claim 8) cover Nokia products that operate in accordance with the VDSL2 Standard. *See* Exh. A. Infringement of claim 8 is disclosed through citations to the portions of this standard relevant to dynamic change of interleaver depth. *See id.* at 9. This same functionality is present within the G.vector Standard. The difference being that in the G.vector Standard this functionality is mandatory, while in the VDSL2 standard it is optional.

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<sup>3</sup> The patents currently asserted against Nokia by TQ Delta are United States Patent Nos. 7,570,686 (“the ’686 Patent”); 7,844,882 (“the ’882 Patent”); 8,090,008 (“the ’008 Patent”); 8,468,411 (“the ’411 Patent”); 8,495,473 (“the ’5473 Patent”); 8,594,162 (“the ’162 Patent”); 8,595,577 (“the ’577 Patent”); 8,937,988 (“the ’988 Patent”); 9,014,193 (“the ’193 Patent”); 9,094,348 (“the ’348 Patent”); 9,154,354 (“the ’354 Patent”); 9,300,601 (“the ’601 Patent”); 9,485,055 (“the ’055 Patent”); 9,547,608 (“the ’608 Patent”); 9,894,014 (“the ’014 Patent”); 10,044,473 (“the ’4473 Patent”); 10,409,510 (“the ’510 Patent”); 10,567,112 (“the ’112 Patent”); and 10,833,809 (“the ’809 Patent”) (collectively, “Asserted Patents”). *TQ Delta, LLC v. Nokia Corp.*, No. 2:21-cv-309-JRG, Dkt. No. 1 at ¶ 24.

In accordance with the currently governing Docket Control Order (Dkt. No. 62) and P.R. 3-1, TQ Delta served its Preliminary Infringement Contentions on Nokia on November 4, 2021. TQ Delta sent the proposed amendment to Nokia on December 2, 2021. Nokia, in turn, served its Preliminary Invalidity Contentions on January 13, 2022. *See* Dkt. No. 62.

This case has only recently entered the claim construction stage. On February 10, the parties exchanged proposed claim terms under P.R. 4-1. *See id.* TQ Delta's Opening Claim Construction Brief is scheduled to be filed more than two months from now on April 26. *See id.* Claim construction briefing will be concluded by the parties on May 20 and a *Markman* hearing is set to follow on June 3. *Id.*

Fact discovery is also at its beginnings. More than six months stand between the time of the instant Motion's filing and the August 15 deadline for the parties to complete fact discovery. August 15 is also the deadline for the parties to serve their opening expert reports. *Id.* The jury trial for this matter is currently set January 2, 2023.

TQ Delta inadvertently omitted citation to the G.vector Standard, which was discovered by TQ Delta on or around December 2, 2020. Nokia was informed of this omission on December 2 and provided with a redlined claim chart displaying TQ Delta's intended amendment. *See* Exh. B at 11. Nokia opposed TQ Delta's request, which it justified with an argument on an unrelated issue, namely, that TQ Delta is currently asserting too many patents and patent claims. *See* Dkt. No. 77. After conferring on this issue, the parties reached an impasse in February.

#### **IV. APPLICABLE LAW**

"A party may amend its infringement contentions after the deadline for good cause." *GREE, Inc. v. Supercell Oy*, No. 2:19-cv-00311-JRG-RSP, 2020 U.S. Dist. LEXIS 242897, at \*5

(E.D. Tex. Dec. 28, 2020) (citing P.R. 3-6). Good cause is determined through a multi-factored analysis. *Id.* (listing relevant factors).

## **V. ARGUMENT**

Good cause exists to grant TQ Delta leave to amend its infringement contentions.

### **A. TQ Delta Has Acted Diligently**

TQ Delta was diligent in ensuring that its infringement contentions fulfilled the purpose ascribed to them—“The purpose of P.R. 3-1 infringement contentions is to provide reasonable notice to an accused infringer of the accused products.” *RevoLaze LLC v. J.C. Penney Corp.*, No. 2:19-CV-00043-JRG, 2020 U.S. Dist. LEXIS 80265, at \*8 (E.D. Tex. May 6, 2020). TQ Delta notified Nokia that products complying with the VDSL2 Standard infringed. The VDSL2 Standard discloses vectoring through dynamic interleaver depth change, and this specific functionality was explicitly cited to in TQ Delta’s infringement contentions. Exh. A, at 9. TQ Delta intended to include an additional citation to the G.vector Standard, which mandates dynamic interleaver depth change. Exh. B, at 11. Including this citation will add no new accused products because the products that comply with the G.vector Standard also comply with VDSL2 and were thus already at issue in this case. The only difference is that TQ Delta is making clear that the accused dynamic interleaver depth functionality in those products is *mandatory* (and not simply *optional*) per the G.vector Standard.

Nokia will likely contend that this Motion appeared in an untimely fashion. But the timeline says otherwise. TQ Delta realized the omission and notified Nokia on December 2, 2021, less than a month after service of its infringement contentions and more than 45 days before Nokia’s deadline to serve invalidity contentions. Nokia responded that it would like to consider the request and discuss it in the context of Nokia’s intent to move the Court to enter the Model

Order Focusing Patent Claims and Prior Art References to Reduce Costs. The parties continued this dialogue and ultimately arrived at an impasse with Nokia filing its Opposed Motion for Entry of Order Focusing Patent Claims and Prior Art on February 4. Dkt. No. 77. TQ Delta discovered the omission early in the case, promptly notified Nokia, and promptly moved for leave once Nokia provided its position.

### **B. The Importance of Allowing the Inclusion of the G.vector Standard**

The proposed amendment is important because it indicates that dynamic interleaver depth change is now mandatory in the ITU Standards. Whether a feature is optional or mandatory directly bears on issues related to infringement and damages. While TQ Delta could argue that compliance with the G.vector Standard is merely additional evidence of infringement of the VDSL2 Standard, out of an abundance of caution and to avoid potential disputes in the future, TQ Delta believed it prudent to seek the Court's guidance on this issue early in the case.

### **C. Nokia Will Not Suffer Prejudice**

Nokia will not suffer any prejudice as a result of the amendment TQ Delta seeks to make to its infringement contentions. Nokia has been on notice of the proposed amendment since December 2, 2021, well before its invalidity contentions were due.<sup>4</sup> TQ Delta offered and stands by its offer that should Nokia wish to seek leave to amend its invalidity contentions to address the amendment, TQ Delta would not oppose. Nokia identified no prejudice during the meet and confer except to state that TQ Delta has asserted too many claims in this lawsuit, an issue not related to the proposed amendment and the subject of a different motion. *See* Dkt. No. 77.

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<sup>4</sup> TQ Delta also disclosed that Nokia's products complying with the G.vector Standard infringed in its Complaint (*see* Original Complaint at ¶¶ 29 & 98, 309 Case (Dkt. No. 1)) and in the cover pleading to TQ Delta's infringement contentions which include multiple "Vectoring" products within the list of accused Nokia products, e.g., "ISAM 48 ports VDSL2 POTS Line Termination Board with System-level Vectoring (NDLT-G)."

Fact discovery will not close for several months, meaning any possible shift in Nokia's litigation strategy can be timely incorporated into the case. As claim 8 of the '162 Patent is already asserted, no unexpected need to construe one if its terms can arise. The *Markman* hearing for this matter is around four months away, and trial is nearly a year away. At this stage of the case, an amendment to TQ Delta's infringement contentions does not pose any realistic threat of prejudicing Nokia's litigation of this suit. *Cf. Phenix Longhorn, LLC v. Wistron Corp.*, No. 2:17-CV-00711-RWS, 2019 U.S. Dist. LEXIS 218351, at \*13 (E.D. Tex. Aug. 16, 2019) (finding prejudice when briefing on a motion for leave to amend ended three months before trial setting).

**D. Availability of Cure Through a Continuance**

Nokia will not suffer any prejudice through this amendment and did not request a continuance when the parties conferred on this Motion. TQ Delta does not believe a continuance is necessary. In any event, given that trial is set for January 2023, this factor should not weigh against leave to amend to address this narrow issue.

**VI. CONCLUSION**

For the foregoing reasons, TQ Delta respectfully asks that it be granted leave to amend its infringement contentions to the extent specified within this Motion, i.e., to make the amendment depicted by the redline portions at page 11 of Exhibit B.

Dated: February 21, 2022

Respectfully submitted,

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### **CERTIFICATE OF SERVICE**

The undersigned certifies that the foregoing document is being filed electronically in compliance with Local Rule CV-5(a). As such, this document is being served this February 21, 2022, on all counsel of record, each of whom is deemed to have consented to electronic service. L.R. CV-5(a)(3)(A).

/s/ William E. Davis, III  
William E. Davis, III

### **CERTIFICATE OF CONFERENCE**

The undersigned certifies that counsel have complied with the meet-and-confer requirements of Local Rule CV-7(h) and (i) and that discussion between the parties have reached an impasse and this motion is opposed.

/s/ William E. Davis, III  
William E. Davis, III